

WHAT IS CLAIMED IS

- 1. A mutant of a Bacillus strain which produces a factor which potentiates the pesticidal activity of a Bacillus related pesticide, wherein the amount of the factor produced by the mutant is greater than the amount of the factor produced by a corresponding parental strain, wherein said Bacillus strain is selected from the group consisting of Bacillus licheniformis, Bacillus subtilus, and Bacillus thuringiensis.
- 2. The mutant according to claim 1, wherein the mutant produces at least about 2 times more factor than the corresponding parental strain.
- 3. The mutant according to claim 1, wherein the factor has 1 H NMR shifts at about δ 1.5, 3.22, 3.29, 3.35, 3.43, 3.58, 3.73, 3.98, 4.07, 4.15, 4.25, and 4.35, and 13 C shifts at about 31.6, 37.2, 51.1, 53.3, 54.0, 54.4, 61.5, 61.6, 64.1, 65.6, 158.3, 170.7, and 171.3
 - 4. The mutant according to claim 1, wherein the factor has the structure I or salt thereof

5. The mutant according to claim 1, wherein the Bacillus strain is a Bacillus thuringiensis strain.

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The mutant according to claim 5, wherein the Bacillus thuringiensis strain is selected from the group consisting of strains of Bacillus thuringiensis subsp. aizawai, Bacillus thuringiens subsp. alesti, Bacillus thuringiensis subsp. canadiensis, Racillus thuringiensis subsp. colmeri, 5 Bacillus thuringiensis subsp. coreanensis, Bacillus thuringiensis subsp. dakota, Bacillus thuringiensis subsp. darmstadiensis, Bacillablas thuringiensis subsp. dendrolimus, Bacillus thuringiensis subsp. entomocidus, Bacillus thuringiensis subsp. finitimus, Bacillus thuringiensis subsp. 10 galleriae, Bacillus thur ingiensis subsp. indiana, Bacillus thuringiensis subsp. israelensis, Bacillus thuringiensis subsp. kenyae, Bacillus thuringiensis subsp. kumamotoensis, Bacillus thuringiensis subsp. kurstaki, Bacillus thuringiensis subsp. kyushuensis, Bacillus thuringiensis subsp. japonensis, Bacillus 15 thuringiensis subsp. mexcanensis, Bacillus thuringiensis subsp. morrisoni, Bacillus thuringiensis subsp. neoleonensis, Bacillus thuringiensis subsp. nigeriae, Bacillus thuringiensis subsp. ostriniae, Bacillus thuringiensis subsp. pakistani, Bacillus thuringiensis subsp. pondicheriensis, Bacillus thuringiensis 20 subsp. shandongiensis, Baci lus thuringiensis subsp. silo, Bacillus thuringiensis subsp. sotto, Bacillus thuringiensis subsp. subtoxicus, Bacillus thuringiensis subsp. tenebrionis,

- Bacillus thuringiensis subsp. thompsoni, Bacillus thuringiensis subsp. tochigiensis, Bacillus thuringiensis subsp. tohokuensis, Bacillus thuringiensis subsp. tolworthi, Bacillus thuringiensis subsp. toumanoffi, Bacillus thuringiensis subsp. wuhanensis, and Bacillus thuringiensis subsp. yunnanensis.
- 7. The mutant according to claim 5, wherein the Bacillus thuringiensis strain is a Bacillus thuringiensis subsp. kurstaki strain.
- 8. The mutant according to claim 1, wherein the
 35 mutant has the identifying characteristics of EMCC0129,
 deposited with the NRRL, having an accession number of NRRL Bwww, or has the identifying characteristics of EMCC0130,

deposited with the NRRL, having an accession number of NRRL B-

- 9. The mutant according to claim 1, wherein the Bacillus related pesticide comprises a Bacillus thuringiensis delta-endotoxin or a pesticidally-active fragment thereof.
- 10. The mutant according to claim 9, wherein the Bacillus thuringiensis delta-endotoxin or the pesticidally10 active fragment thereof is selected from the group consisting of CryI, CryII, CryIII, CryIV, CryV, and CryVI.
- 11. The mutant according to claim 10, wherein the Bacillus thuringiensis delta-endotoxin or the pesticidally-active fragment thereof is a CryIA delta-endotoxin or a pesticidally-active fragment thereof.
- 12. The mutant according to claim 10, wherein the Bacillus thuringiensis delta-endotoxin or the pesticidally20 active fragment thereof is a CryIC delta-endotoxin or a pesticidally-active fragment thereof.
- 13. The mutant according to claim 1, wherein the Bacillus related pesticide comprises a Bacillus thuringiensis 25 spore.
 - 14. The mutant according to claim 1, wherein the factor is obtained by
- (a) culturing the mutant of the Bacillus strain under 30 suitable conditions;
 - (b) recovering a supernatant of the culture of the mutant of step (a); and
 - (c) isolating the factor from the supernatant of step (b).
- 15. The mutant according to claim 14, wherein the factor is obtained from the supernatant of the culture of a Bacillus thuringiensis strain.

- 16. A method for obtaining the mutant of claim 1 comprising
 - (a) treating a Bacillus strain with a mutagen;
- 5 (b) growing the mutated Bacillus strain of step (a) under suitable conditions for selecting the mutant; and
 - (c) selecting the mutant of step (b).
- 17. A mutant of a Bacillus strain obtained according to the method of claim 16.

43